I hereby certify that this correspondence is being deposited with the U.S. Postal Service as Express Mail, Airbill No. EV544978902US, in an envelope addressed to: MS PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date shown below.

Dated: 7-19-05 Signature:

Programa Malos

Patent Docket No. 562492004000 Client Reference No. 02-0010-IPW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of: Paul HOWARD

Serial No.: 10/531,152

International Filing Date: October 20, 2003

For: PRE-EQUALISATION FOR UMTS

BASE STATION

Examiner: Not Yet Assigned

Group Art Unit: Not Yet Assigned

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. § 1.97 & 1.98

MS PCT Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

Dear Sir:

Pursuant to 37 C.F.R. §1.97 and § 1.98, Applicant submits for consideration in the above-identified application the documents listed on the attached Form PTO/SB/08a/b. Copies of foreign documents and non-patent literature are submitted herewith. The Examiner is requested to make these documents of record.

This Information Disclosure Statement is submitted:

With the application; accordingly, no fee or separate requirements are required.
Before the mailing of a first Office Action after the filing of a Request for Continued
Examination under § 1.114. However, if applicable, a certification under 37 C.F.R. § 1.97
(e)(1) has been provided.

\boxtimes	Withi	n three months of the application filing date or before mailing of a first Office Action
	on the	e merits; accordingly, no fee or separate requirements are required. However, if
	applic	cable, a certification under 37 C.F.R. § 1.97 (e)(1) has been provided.
	After	receipt of a first Office Action on the merits but before mailing of a final Office Action
	or No	tice of Allowance.
		A fee is required. A check in the amount of is enclosed.
		A fee is required. Accordingly, a Fee Transmittal form (PTO/SB/17) is attached to
		this submission in duplicate.
		A Certification under 37 C.F.R. § 1.97(e) is provided above; accordingly; no fee is
		believed to be due.
	After	mailing of a final Office Action or Notice of Allowance, but before payment of the
	issue	fee.
		A Certification under 37 C.F.R. § 1.97(e) is provided above and a check in the
		amount of is enclosed.
		A Certification under 37 C.F.R. § 1.97(e) is provided above and a Fee Transmittal
		form (PTO/SB/17 is attached to this submission in duplicate.)

Applicant would appreciate the Examiner initialing and returning the Form PTO/SB/08a/b, indicating that the information has been considered and made of record herein.

The information contained in this Information Disclosure Statement under 37 C.F.R. § 1.97 and § 1.98 is not to be construed as a representation that: (i) a complete search has been made; (ii) additional information material to the examination of this application does not exist; (iii) the information, protocols, results and the like reported by third parties are accurate or enabling; or (iv) the above information constitutes prior art to the subject invention.

In the unlikely event that the transmittal form is separated from this document and the Patent and Trademark Office determines that an extension and/or other relief (such as payment of a fee under 37 C.F.R. § 1.17 (p)) is required, Applicant petitions for any required relief including

extensions of time and authorizes the Commissioner to charge the cost of such petition and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing <u>562492004000</u>.

Dated: July 19, 2005

Respectfully submitted,

Bryan H. Wyman

Registration No.: 48,049

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Substitute for form 1449/PTO		Complete if Known				
				Application Number	10/531,152	
11	IFORMATION	1 DI	SCLOSURE	Filing Date (Int'I)	October 20, 2003	
l s	TATEMENT B	3Y /	APPLICANT	First Named Inventor	Paul HOWARD	
				Art Unit	Not Yet Assigned	
	(Use as many sh	eets as	s necessary)	Examiner Name	Not Yet Assigned	
Sheet 1 of 2		Attorney Docket Number	562492004000			

	U.S. PATENT DOCUMENTS							
Examiner Cite No.¹ Number-Kind Code² (if known)			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear			
	1.	US-2002/0126220-A1	09-12-2002	Wilson et al.				
	2.	US-5,627,826-A	05-06-1997	Kameda et al.				

		FOREI	GN PATENT	DOCUMENTS	***	
Examiner Initials*	Cite No.1	Foreign Patent Document Country Code³ -Number⁴-Kind Code⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
	3.	EP-0 551 803-A1, B1	07-21-1993	Telefonaktiebolaget L M Ericsson		
	4.	EP-0 827 295-A2, A3	03-04-1998	Siemens AG		
	5.	EP-0 994 570-A1	04-19-2000	Sony International (Europe) GMBH		
	6.	EP-1 235 360-A1	08-28-2002	Matsushita Electric Industrial Co., Ltd.		
	7.	WO-02/082705-A1	10-17-2002	Linkair Communications, Inc.		
	8.	WO-2004/039098-A1	05-06-2004	IPWireless, Inc.		

*EXAMINER: Initial if information considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 'Applicant's unique citation designation number (optional). 'See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 'Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 'For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 'Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. 'Applicant is to place a check mark here if English language Translation is attached.

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
	9.	3GPP (March 2002). "3rd Generation Partnership Project; Technical Specification Group Radio Access Networks; BS Radio Transmission and Reception (TDD) (Release 1999)," 3GPP TS 25.105, V3.10.0, pp. 1-39.	
	10.	3GPP (March 2002). "3rd Generation Partnership Project; Technical Specification Group Radio Access Network; Physical Channels and Mapping of Transport Channels onto Physical Channels (TDD) (Release 1999)," 3GPP TS 25.221, V3.10.0, pp. 1-51.	
	11.	ETSI (December 2000). "Universal Mobile Telecommunications System (UMTS); UTRA (BS) TDD; Radio Transmission and Reception (3GPP TS 25.105 version 3.5.0 Release 1999)," ETSI TS 125 105 V3.5.0 pp. 1-18.	
	12.	Hosur, S. et al. (September 2000). "Design of Cyclically Permutable Codes for PN Code Acquisition in WCDMA TDD Mode," <i>IEEE VTS Fall VTC2000 52nd Vehicular Technology Conference</i> , Boston, MA, September 24-28, 2000, pp. 581-587.	
	13.	Koukourlis, S.S. et al. (March 1995). "On the Capacity of an FFH-CDMA Packet Radio Network," <i>IEEE Transactions on Broadcasting</i> 41(1):17-22.	
	14.	Lei, M. et al. (June 2002). "Channel Estimation Based on Midamble in UTRA-TDD System," Proceeding of the International Conference on Telecommunications 2002, Beijing, China, June 23-26, 2002, 2:434-438.	
	15.	Search Report for GB Application No. 0224757.5 filed October 24, 2002, mailed April 28, 2003, one page.	

Examiner	Dai	ate	
Signature	Co	onsidered	

Sut	INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Complete if Known			
				Application Number	10/531,152	-
11	INFORMATION DISCLOSUR STATEMENT BY APPLICAN (Use as many sheets as necessary)	SCLOSURE	Filing Date (Int'I)	October 20, 2003		
S	TATEMENT I	3Y /	APPLICANT	First Named Inventor	Paul HOWARD	_
				Art Unit	Not Yet Assigned	
	(Use as many sh	eets as	s necessary)	Examiner Name	Not Yet Assigned	
Sheet	2	of	2	Attorney Docket Number	562492004000	

16.	Sills, J.A. (August 2002). "Adaptive Power Amplifier Linearization by Digital Pre-Distortion Using Genetic Algorithms," <i>IEEE Radio and Wireless Conference</i> , Boston, MA, August 11-14, 2002, pp. 229-232.	
17.	Springer, A. et al. (September 2001). "Digital Predistortion-Based Power Amplifier Linearization for UMTS," <i>European Conference on Wireless Technology</i> , London, England, September 27-28, 2001, pp. 185-188.	
18.	Steiner, B. et al. (September 1993). "Uplink Channel Estimation in Sychronous CDMA Mobile Radio Systems with Joint Detection," <i>The 4th International Symposium on Personal, Indoor and Mobile Radio Communications</i> Yokohama, JP, September 8-11, 1993, pp. 123-127.	
19.	Steiner, B. et al. (JanFeb. 1994). "Optimum and Suboptimum Channel Estimation for the Uplink of CDMA Mobile Radio Systems with Joint Detection," <i>European Transactions on Telecommunications and Related Technologies</i> 5(1):39-50.	
20.	Väänänen, O. et al. (September 2002). "Reducing the Peak to Average Ratio of Multicarrier GSM and EDGE Signals," 13th IEEE International Symposium on Personal Indoor and Mobile Radio Communications, Lisboa, PT, September 15-18, 2002, 1:115-119.	

^{*}EXAMINER: Initial if information considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.